Message

From: Ho, Yenhung [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0373CF6F13A849F1BB61BB1D1B64F981-YHO]

Sent: 5/21/2021 6:16:09 PM

To: Shari Ring [Shari.Ring@cadmusgroup.com]

CC: Rao, Kate [Rao.kate@epa.gov]

Subject: RE: [EXT] FW: Draft Language for Class VI Stimulation Program in Permit

Attachments: CES Draft Class VI Permit (CH)(DA) rev1.docx

Hi Shari,

David's and my comments on the draft are attached. Please let me know if you have any questions. We should be receiving CES's updated permit application by 5/31.

From: Shari Ring <Shari.Ring@cadmusgroup.com>

Sent: Wednesday, April 28, 2021 10:14 AM To: Ho, Yenhung < Ho. Yenhung@epa.gov>

Cc: Rao, Kate < Rao.kate@epa.gov>

Subject: RE: [EXT] FW: Draft Language for Class VI Stimulation Program in Permit

Attached is the updated permit text.

Please let me know if you need anything else. I can create Attachment I now or closer to the time we are assembling the draft permit (it won't take long).

From: Ho, Yenhung < Ho. Yenhung@epa.gov > Sent: Wednesday, April 28, 2021 12:24 PM
To: Shari Ring < Shari.Ring@cadmusgroup.com >

Cc: Rao, Kate < Rao.kate@epa.gov>

Subject: RE: [EXT] FW: Draft Language for Class VI Stimulation Program in Permit

Hi Shari,

Yes, we plan to have CES review the draft permit. Please update the permit language as soon as you can.

From: Shari Ring <Shari.Ring@cadmusgroup.com>

Sent: Wednesday, April 28, 2021 9:12 AM **To:** Ho, Yenhung < <u>Ho.Yenhung@epa.gov</u>>

Cc: Rao, Kate < Rao.kate@epa.gov>

Subject: RE: [EXT] FW: Draft Language for Class VI Stimulation Program in Permit

Hi Calvin,

Based on Molly's reply to my email, I don't think we need to ask anything of CES. Cadmus can fill in the template and we can attach it to the draft permit. Am I correct that CES will get a chance to review the draft permit? If so, it may be enough to just add this to the permit and let them read the template language.

We need to update the permit language too – I can do that at any time.

From: Ho, Yenhung < Ho. Yenhung@epa.gov > Sent: Wednesday, April 28, 2021 11:12 AM To: Shari Ring < Shari.Ring@cadmusgroup.com >

Cc: Rao, Kate < Rao.kate@epa.gov>

Subject: [EXT] FW: Draft Language for Class VI Stimulation Program in Permit

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Hi Shari,

Please incorporate Molly's bullet points below and the information from the attached draft template into our request for CES.

Thanks, Calvin

From: McEvoy, Molly <<u>mcevoy.molly@epa.gov</u>>
Sent: Wednesday, April 28, 2021 7:43 AM

To: Albright, David <<u>Albright.David@epa.gov</u>>; Ho, Yenhung <<u>Ho.Yenhung@epa.gov</u>>; <u>Shari.Ring@cadmusgroup.com</u>; Newman, Sharon <<u>Newman.Sharon@epa.gov</u>>; Bates, William <<u>bates.william@epa.gov</u>>; Kobelski, Bruce <Kobelski.Bruce@epa.gov>

Cc: Feuer, Daniel < Feuer. Daniel@epa.gov >; Carey, Kyle < Carey. Kyle@epa.gov >

Subject: Draft Language for Class VI Stimulation Program in Permit

Hello all,

Per our discussion last week, please find attached draft template language for Section K.2 of the Class VI permit front matter and a draft template for Attachment I (Stimulation Program) based on Region 5's work. Below are some bullets to provide context for the proposed changes, which are still in draft form.

- EPA has learned that at least two CO2 injection well operators have observed clogging of the injection well
 perforations with particles (e.g., salt precipitates) over time. The clogging resulted in decreased injectivity,
 requiring some form of stimulation to clear the perforations. Based on what we have learned, EPA anticipates
 that this clogging could be a potential issue for other CO2 injection projects in the future.
- The UIC Class VI regulations at 40 CFR 146.88(a) require that all stimulation programs be approved by the
 Director as part of the permit application and incorporated by permit. If the initial permit does not include a
 stimulation program and the operator identifies a need for well stimulation later on in the life of the project, a
 major permit modification would be necessary.
- Although CES does not anticipate well stimulation at this time, EPA suggests that CES prepare a draft stimulation program to avoid the need for a permit modification if stimulation were to become necessary in the future.

Please let me know if you have any questions or need anything else.

Thanks, Molly

Molly McEvoy Office of Ground Water & Drinking Water U.S. Environmental Protection Agency Washington, D.C.

Phone: 202-564-4765